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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/083,114

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Ichiro Okajima

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EXAMINER

CHOUDHURY, AZIZUL Q

ART UNIT

PAPER NUMBER

2145

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/083,114

Applicant(s)

OKAJIMA ET AL.

Examiner

Azizul Choudhury

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-8,10-13 and 15-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-8,10-13 and 15-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Detailed Action***

***Withdrawal of Finality***

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11, 12, 13, 25, 26 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 11, 12, 13, 25, 26 and 27 are directed towards a program in a "computer storage medium." A "computer storage medium" unfortunately is not acceptable matter for it continues to violate MPEP 2106. No clear definition or explanation is provided for what constitutes a "computer storage medium," within the specifications.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-8, 10-13 and 15-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang, H.J. et al, hereafter referred to as Wang.

1. With regards to claims 1 and 6, Wang teaches a link manager comprising: detecting means for detecting a link installation (p. 54, column 2, lines 31-35 and p. 55, Table 2 and p. 59, column 1, lines 14-18); managing means for defining a plurality of link metrics indicating characteristics of each said link detected and managing data corresponding to said respective link metrics on a table (p. 54, column 2, lines 31-35 and p. 55, Table 2); link metric rank assigning means for assigning ranks to said respective link metrics, based on a predetermined preference (p. 55, column 2, lines 33-35); data rank assigning means for assigning ranks to the data corresponding to said respective link metrics; and selecting means for selecting a link by analyzing each link based on each individual stored (constant and variable link) metric in order of rank, and selecting a link corresponding to a record having data with a highest rank thus assigned, at a link metric with a highest rank (p. 53, column 2, lines 42-45 and p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

2. With regards to claims 2 and 7, Wang teaches the link manager, wherein said managing means generates a record comprised of the data corresponding to said respective link metrics, for each link on said table (p. 54, column 2, lines 31-35 and p. 55, Table 2).

3. With regards to claims 3 and 8, Wang teaches the link manager, wherein when a new link corresponding to neither said record is detected, said managing means

Art Unit: 2145

generates a record corresponding to said new link and records data corresponding to link metrics of said link and wherein when a link corresponding to either said record becomes undetectable, said managing means deletes said record (p. 59, column 1, lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29).

4. With regards to claims 5 and 10, Wang teaches the link manager, wherein when there exists a plurality of records having data with the highest rank thus assigned, said selecting means selects a link corresponding to a record having data with a highest rank thus assigned, at a link metric with a next highest rank (p. 55, column 2, lines 32-35 and p. 56, column 1, lines 28-37).

5. With regards to claim 11, Wang teaches a computer program of the product including a computer storage medium with a computer program code mechanism stored therein which when executed by a computer causes the computer to perform a method of link management comprising steps of: detecting a link installation (p. 54, column 2, lines 31-35 and p. 55, Table 2 and p. 59, column 1, lines 14-18); defining a plurality of link metrics indicating characteristics of each said link detected and managing data corresponding to said respective link metrics on a table (p. 54, column 2, lines 31-35 and p. 55, Table 2); a process of generating a record comprised of the data corresponding to said respective link metrics, for each link on said table (p. 54, column 2, lines 31-35 and p. 55, Table 2); assigning ranks to said respective link metrics, based on a predetermined preference (p. 55, column 2, lines 33-35); assigning ranks to the

Art Unit: 2145

data corresponding to said respective link metrics; and when said predetermined preference is given, analyzing each link based on each individual metric in the ranking order of the respective metrics and selecting a link corresponding to a record having data with a highest rank thus assigned, at a link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

6. With regards to claim 12, Wang teaches the computer program product, which comprises a process of, when there exist a plurality of records having data with the highest rank thus assigned, selecting a link corresponding to a record having data with a highest rank thus assigned, at a link metric with a next highest rank (p. 55, column 2, lines 32-35 and p. 56, column 1, lines 28-37).

7. With regards to claim 13, Wang teaches the computer program product, which comprises a process wherein when a new link corresponding to neither said record is detected, a record corresponding to said new link is generated and data corresponding to link metrics of said link is recorded and wherein when a link corresponding to either said record becomes undetectable, said record is deleted (p. 59, column 1, lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29 and p. 58, column 1, lines 1-14).

8. With regards to claim 15, Wang teaches a link manager comprising: detecting means for detecting a link installation (p. 54, column 2, lines 31-35 and p. 55, Table 2

Art Unit: 2145

and p. 59, column 1, lines 14-18); managing means for defining a plurality of constant link metrics and variable link metrics (p. 56, column 1, lines 38-49), each indicating characteristics of each said link detected and managing data corresponding to said respective link metrics on a table, said managing means monitoring the variable link metrics which vary over time (p. 54, column 2, lines 31-35 and p. 55, Table 2); and selecting means for selecting a link by analyzing each link based on each individual stored constant and variable link metric in order of rank, and selecting a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

9. With regards to claim 16, Wang teaches the link manager, wherein said managing means generates a record comprised of the data corresponding to said respective constant and variable link metrics, for each link on said table (p. 54, column 2, lines 31-35 and p. 55, Table 2).

10. With regards to claim 17, Wang teaches the link manager, wherein when a new link corresponding to neither said record is detected, said managing means generates a record corresponding to said new link and records data corresponding to constant and variable link metrics of said link and wherein when a link corresponding to either said record becomes undetectable, said managing means deletes said record (p. 59, column 1, lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29).

11. With regards to claim 18, Wang teaches the link manager, which comprises: link metric rank assigning means for assigning ranks to said constant and variable link metrics, based on a predetermined preference (p. 55, column 2, lines 33-35); and data rank assigning means for assigning ranks to the data corresponding to said constant and variable link metrics, wherein when said predetermined preference is given, said selecting means selects a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 2, lines 28-37).

12. With regards to claim 19, Wang teaches the link manager, wherein when there exists a plurality of records having data with the highest rank thus assigned, said selecting means selects a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a next highest rank (p. 55, column 2, lines 32-35 and p. 56, column 1, lines 28-37).

13. With regards to claim 20, Wang teaches a link management method comprising: a detecting step of detecting a link installation (p. 54, column 2, lines 31-35 and p. 55, Table 2 and p. 59, column 1, lines 14-18); a managing step of defining a plurality of constant link metrics and variable link metrics (p. 56, column 1, lines 38-49), each indicating characteristics of each said link detected and managing data corresponding to said respective link metrics on a table, said managing means monitoring the variable



Art Unit: 2145

link metrics which vary over time (p. 54, column 2, lines 31-35 and p. 55, Table 2); and a selecting step of selecting a link by analyzing each link based on each individual stored constant and variable metric in order of rank, and selecting a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

14. With regards to claim 21, Wang teaches the link management method, which comprises a step of generating a record comprised of the data corresponding to said respective constant and variable link metrics, for each link on said table (p. 54, column 2, lines 31-35 and p. 55, Table 2).

15. With regards to claim 22, Wang teaches the link management method, which comprises a step wherein when a new link corresponding to neither said record is detected, a record corresponding to said new link is generated and data corresponding to constant and variable link metrics of said link is recorded and wherein when a link corresponding to either said record becomes undetectable, said record is deleted (p. 59, column 1, lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29).

16. With regards to claim 23, Wang teaches the link management method, which comprises: a step of assigning ranks to said constant and variable link metrics, based on a predetermined preference (p. 55, column 2, lines 33-35); and a step of assigning

Art Unit: 2145

ranks to the data corresponding to said constant and variable link metrics, wherein said selecting step comprises a step of, when said predetermined preference is given, selecting a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

17. With regards to claim 24, Wang teaches the link assignment method, wherein said selecting step comprises a step of, when there exists a plurality of records having data with the highest rank thus assigned, selecting a link: corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with the next highest rank (p. 55, column 2 lines 32-35 and p. 56, column 1, lines 28-37).

18. With regards to claim 25, Wang teaches the computer program product including a computer storage medium with a computer program code mechanism stored therein, which when executed by a computer causes the computer to perform a method of link management, comprising steps of: detecting a link installation (p. 54, column 2, lines 31-35 and p. 55, Table 2 and p. 59, column 1, lines 14-18); defining a plurality of constant link metric and variable link metrics (p. 56, column 1, lines 38-49), each indicating characteristics of each said link detected and managing data corresponding to said respective link metrics on a table (p. 54, column 2, lines 31-35 and p. 55, Table 2), and monitoring the variable link metrics which vary over time (p. 53, column 2, lines 42-45); a process of generating a record comprised of the data corresponding to said

respective constant and variable link metrics, for each link on said table; assigning ranks to said respective link metrics, based on a predetermined preference; assigning ranks to the data corresponding to said respective constant and variable link metrics; and when said predetermined preference is given (p. 55, column 2, lines 33-35); analyzing each link based on each individual metric in the ranking order of the respective constant and variable metrics and selecting a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

19. With regards to claim 26, Wang teaches the computer program product, which comprises a process of, when there exist a plurality of records having data with the highest rank thus assigned, selecting a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a next highest rank (p. 55, column 2, lines 32-35 and p. 56, column 1, lines 28-37).

20. With regards to claim 27, Wang teaches the computer program product, which comprises a process wherein when a new link corresponding to neither said record is detected, a record corresponding to said new link is generated and data corresponding to constant and variable link metrics of said link is recorded and wherein when a link corresponding to either said record becomes undetectable, said record is deleted (p. 59, column 1, lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29 and p. 58, column 1, lines 1-14).

21. With regards to claim 28, Wang teaches a computer-readable memory in which the program is recorded (The claimed trait is inherent in a design with computing devices).

22. With regards to claim 29, Wang teaches a link manager comprising: a detector configured to detect a link installation (p. 54, column 2, lines 31-35 and p. 55, Table 2 and p. 59, column 1, lines 14-18); a processor configured to define a plurality of constant link metrics and variable link metrics (p. 56, column 1, lines 38-49), each indicating characteristics of each said link detected and managing data corresponding to said respective link metrics on a table, said managing means monitoring the variable link metrics which vary over time (p. 54, column 2, lines 31-35 and p. 55, Table 2); and a processor configured to select a link by analyzing each link based on each individual stored constant and variable link metric in order of rank, and selecting a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

### ***Response to Remarks***

The correspondence received on May 9, 2006 has been carefully examined but is not deemed fully persuasive. In lieu of the arguments, the 112-type rejection has been withdrawn. However, the 101-type rejection continues to stand. The applicant

Art Unit: 2145

contends that the specifications describe the link manager and various hardware components of the link manager within Figures 2 and p. 8, lines 5-19. The examiner has reviewed those portions of the specifications along with the remainder of the specifications and is not convinced that the 101-rejection should be withdrawn. The 101-type rejection has been issued for the claims that claim a program. The program is not clearly defined as being stored in a tangible storage medium anywhere within the claims or within the specifications. It is still possible that the program is stored within a carrier wave or other non-tangible mediums. It is for these reasons that the 101-type rejections continue to stand.

The final point of contention involves the claimed trait of "analyzing each link based on each individual stored metric in order of rank and selecting a link corresponding to a record having data with a highest rank thus assigned." Wang teaches parameters being weighted in values that sum to 1, to determine the "cost" of a link. The best link can be determined by evaluating the cost of each link (p. 55, section 5.3). The applicant contends that by determining the cost, only a cumulative parameter is evaluated. This is an incomplete analysis. By evaluating the cost of the links, the weights of the individual parameters of the links are being evaluated. If they were not, the individual weights assigned would have no true meaning. This is further supported by the fact that Wang teaches how parameter can be weighted to zero if they are not to be evaluated. If all but one parameter is to be evaluated and ranked, the other parameters can be weighted, as being zero and then only that one parameter will be evaluated.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Azizul Choudhury whose telephone number is (571) 272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

  
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